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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,277	10/21/2004	Hiromu Ueshima	100341-00054	6411
4372	7590	09/07/2007		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER HOEL, MATTHEW D	
			ART UNIT 3714	PAPER NUMBER
			NOTIFICATION DATE 09/07/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,277	<b>Applicant(s)</b> UESHIMA, HIROMU	
	<b>Examiner</b> Matthew D. Hoel	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togami (U.S. patent 6,394,897 B1) in view of Tosaki, et al. (U.S. patent 6,312,335 B1) and Nomura, et al. (5,779,555 A).

4. As to Claim 1: '897 outlines all of the limitations of Claim 1, but lacks the claimed input device. '897 teaches a game machine displaying a ball on a monitor screen through execution of a game program in which a CPU player controlled by a computer program plays against the player (Abst.; 11:59-63). '897 has a first calculation circuit for calculating a predicted return position of the ball returned by the CPU player (Fig. 13, step 101; 12:43-58). '897 has a judgment circuit for judging whether a current position

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of the player is in a ball strikable range of the player (Fig. 13, determines whether the player is within "striking" distance (as defined by the applicant by determining first which player character is the most suitable for intercepting the volleyball (S106) in relation to the volleyball's determined landing position (S102) and moving the player character to the volleyball's determined landing position (S110) if the player is greater than a successful receiving distance (S109) from the volleyball's determined landing position). '897 has a ball striking position movement circuit for automatically moving a ball striking position of the player to be approximated to the predicted return position in response to a negative judgment by the judgment circuit (Fig. 13, Claims 5 & 6). '335, however, discusses a game system including a game machine and an input device under which a player plays a game using the input device, the input device comprising an acceleration sensor for generating an acceleration correlation signal when the player actually swings the input device in a real space (Abst.; 16:15-55; 17:36-43), and a transmission unit for transmitting the generated acceleration correlation signal to the game machine (Fig. 2a, 5:40-53). '335 also has a swing detection circuit for detecting whether the input device has actually been swung or not (16:35-48). One of ordinary skill in the art at the time the invention was made would have been motivated to apply the input device of '335 to the game of '897. Tennis as outlined in '335 and volleyball as outlined in '335 are analogous games in that each involves opposing individuals or teams volleying a ball back and forth over a net, with the intent of keeping the volley going as long as possible. A player or team loses a round if he/she or they let the ball hit the floor on their side of the court or serve it out of bounds to the other player's side.

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'335 teaches the input device applied to the game of tennis as well as volleyball (17:35-43). The advantage of this combination is to provide a more realistic input for the game by using controllers, which imitate the player's actual motions in the sports games, as opposed to simply using the standard controllers outlined in '897 (Fig. 1). These standard controllers have the disadvantage of requiring players to memorize, which keys correspond to which actions, which is not always intuitive. Having the input device mimic the player's natural motions also makes the game easier to learn.

5. The combination of '897 and '335 do not specifically teach a second evaluation circuit for calculating an initial speed vector of the ball after received when the swing detection circuit has detected a swing in the ball strikable range, from a position of the ball and acceleration of the input device according to the acceleration correlation signal. This, however, is suggested by '335's determination of the force, path, and angle of the bat, as well as the timing of the impact of the ball (16:35-53). '897 determines the speed, path, and landing position of the ball after it has been hit by a player (9:1-10). The limitation is also suggested by Rimoto in U.S. patent 6,257,983 B1 (Figs. 6A-D, Col. 10) which detects whether an approaching baseball is within a strike zone (strikable range). Determining the angle and acceleration of a struck ball is taught by the analogous reference Nomura, et al. (U.S. patent 5,779,555 A, 1:7-22, Figs. 6A-B, 6:39-67, Claim 1). One of ordinary skill in the art at the time the invention was made would have been motivated to include the determination of an initial speed vector. The advantage of this combination is to precisely determine the angle, velocity, and

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acceleration of the simulated ball after impact based on the actual acceleration of the input device.

6. As to Claim 6: Claim 6 is rejected for the same reasons as Claim 1, except that the combination would have two or more players, each player, of course, with his or her own input device. '897 teaches a player vs. player mode (11:59-63) and two sets of controls (Fig. 1).

7. As to Claim 7: The controller of '335 has a switch (35a, Fig. 3). '335 moves the position from a forward position to a backward position or vice-versa based on the controller's input (17:44 to 43, reflected in image). In the case of volleyball this would be the ball striking position (17:36-43).

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over '897, '335, and '555 in view of Cheng (U.S. patent 5,667,220 A).

9. As to Claims 8 and 9: The references cited above do not cite a digitally modulated infrared signal. One of ordinary skill in the art at the time of invention would have been motivated to apply the digitally modulated infrared signal of '220 (Fig. 6; 3:54-65) to the cited combination. This would have the advantage of eliminating the signal wire of '335 (Fig. 1) which would tend to get in the way of a player in an action game involving swinging the controller.

***Response to Arguments***

**10.** Applicant's arguments with respect to claims 1 and 6 to 9 have been considered but are moot in view of the new ground(s) of rejection. The new grounds of rejection reduce cumulative art and clarify the examiner's position.

***Conclusion***

**11.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

**12.** If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

**13.** Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
ROBERT E. PEZZUTO  
SUPERVISORY PRIMARY EXAMINER